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英　　語

問　題

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注　意　事　項

1. この科目では、この問題冊子のほかに、マーク解答用紙を配付します。
2. 試験開始の指示があるまで、問題冊子および解答用紙には手を触れないでください。
3. 問題は２～11ページに記載されています。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚損等に気付いた場合は、手を挙げて監督員に知らせてください。
4. 解答はすべて、ＨＢの黒鉛筆またはＨＢのシャープペンシルで記入してください。
5. マーク解答用紙記入上の注意
   (1) 印刷されている受験番号が、自分の受験番号と一致していることを確認したうえで、氏名欄に氏名を記入してください。
   (2) マーク欄にははっきりとマークしてください。また、訂正する場合は、消しゴムで丁寧に、消し残しがないようによく消してください。

マークする時	●良い ○悪い ◎悪い
マークを消す時	○良い ○悪い ◎悪い

6. 解答はすべて所定の解答欄に記入してください。所定の欄以外に受験番号・氏名を記入した解答用紙は採点の対象外となる場合があります。
7. 試験終了の指示が出たら、すぐに解答をやめ、筆記用具を置き解答用紙を裏返しにしてください。
8. 問題冊子は持ち帰ってください。
9. いかなる場合でも、解答用紙は必ず提出してください。

Part I. Read Text I, Text II, and Text III and choose the best option from a – d for questions 1 – 15.

Text I

[1] A variety of theoretical frameworks have incorporated "holistic" or "global" processing mechanisms as a core component of expertise in medical image perception, including the holistic model (Kundel et al., 2007), the global-focal search model (Nodine and Kundel, 1987), and the two-stage detection model (Swensson, 1980). Moreover, several other conceptualizations of holistic processing were initially developed in other domains and later applied to the field of medical image perception, including the view that visual scenes are processed using two distinct pathways (Torralba et al., 2006; Wolfe et al., 2011; Drew et al., 2013), and chunking/template theory from the domain of chess (Chase and Simon, 1973a,b; Gobet and Simon, 1996, 2000; Wood, 1999). As discussed below, these different theoretical perspectives offer distinct – but partially overlapping – conceptualizations of holistic processing during medical image perception.

[2] According to the global-focal search model (Nodine and Kundel, 1987; see also, Nodine and Mello-Thoms, 2000, 2010), medical experts rapidly extract a global impression of an image, and this impression consists of a comparison between the contents of the image, and the expert's prior knowledge about the visual appearance of normal and abnormal medical images (i.e., the expert's schemas). This global impression enables experts to identify perturbations, which are deviations from the expert's schemas that indicate possible abnormalities. Using this global impression, medical experts can then direct their eyes toward the locations of possible abnormalities, so that these locations can be further examined using the fovea (i.e., the small region of the human eye that permits the extraction of detailed visual information). Although these global and focal processing stages are conceptualized as operating serially (such that the global impression of the image precedes focal processing), Nodine and Mello-Thoms (2000, p. 869) note that the global and focal processing stages can be recursive, such that after the completion of focal processing of a possible abnormality "attention shifts back to the medical image for a new global impression flagging another perturbed region, focal analysis searches it, a new object may be recognized and recursive testing for abnormalities continues until the observer is satisfied that enough evidence has accumulated to make a diagnostic decision."

[3] Similar to the global-focal search model, the two-stage detection model (Swensson, 1980) emphasizes the important role of holistic processing in medical image perception. According to the two-stage detection model, experts acquire perceptual mechanisms through extensive training, which serve as an initial filter that automatically identifies features that require further examination. These perceptual mechanisms are capable of filtering out normal anatomical structures, in order to rapidly direct the expert's attention toward regions of the image that contain potential abnormalities. Thus, both the two-stage detection model and the global-focal search model assume that experts can process large regions of an image using their parafoveal and peripheral vision (i.e., regions of the visual field that are outside of the fovea), which enables them to rapidly identify potentially relevant regions of the images that can subsequently be examined further using foveal vision. As well, similar to the global-focal search model, the two-stage detection model adopts two serial stages of processing (although unlike the global-focal search model, these stages were not assumed to be recursive). More specifically, according to the two-stage detection model, the perceptual mechanisms comprising the initial filter (which is assumed to operate pre-attentively) provide input for a subsequent stage of processing. During this subsequent stage, attention is focused on potentially relevant specific features, and "Each selected feature receives an explicit evaluation by a cognitive process which determines whether (and at what level of confidence) that feature will be reported as a target" (Swensson, 1980, p. 11). Swensson (1980) used signal detection theory to implement these two stages (i.e., the initial "preattentive filter" and the subsequent "cognitive evaluation") within a formal model in order to simulate the ROC curves* obtained from empirical studies of the diagnostic performance of radiologists.

[4] Congruent with the two-stage detection model and the global-focal search model, Kundel et al. (2007) contended that the development of expertise in medical image perception reflects a shift from a comparatively slow "search-to-find" mode to a more rapid holistic mode. The holistic mode involves a rapid global assessment of the image, which enables the expert to identify perturbations that could be potential abnormalities. The expert then subsequently initiates the "search to find" mode, which involves shifting their gaze to potentially relevant locations, as well as scanning the image to locate additional abnormalities that were not salient enough to be noticed during the initial global assessment. Kundel et al. (2007) also points out that global processing can operate in parallel with the search-to-find mode, so global information can continue to "flag" new abnormalities even after scanning is already in progress. Kundel et al. (2007) contends that the ability to engage in global processing during medical image perception requires extensive training and experience to develop. Thus, in

contrast to experts, novices have not acquired the ability to engage in the rapid holistic mode, and are therefore primarily limited to discovering abnormalities using the slower search-to-find mode.

[Adapted from Sheridan, H., & Reingold, E. M. (2017). The Holistic Processing Account of Visual Expertise in Medical Image Perception: A Review. *Frontiers in Psychology, 8*, Article 1620.]

*ROC (Receiver operating characteristic) curve = a graph plotting true positives vs. false positives in order to evaluate the performance of a classifier system.

Questions 1 – 9 refer to Text I.

1. According to the global-focal search model, the two-stage detection model, and the chunking/template theory, which of the following is the main cause of the difference between experts' and novices' perception of medical images?
   a. better eyesight
   b. processing of overlapping conceptualizations
   c. two distinct pathways
   d. processing of the overall impression of the image

2. Which of the following were originally developed to explain expertise in medical image perception?
   1) the holistic model
   2) the global-focal search model
   3) the two-stage detection model
   4) the chunking/template theory
   a. 1 and 2 only
   b. 2 and 4 only
   c. 1, 2, and 3 only
   d. 1, 2, 3, and 4

3. What is the most likely motivation for the authors of Text I to mention chunking/template theory?
   a. It can be used to explain expertise in medical image perception.
   b. The research on chess is older than the research on medical imaging.
   c. They want to claim that chess players might be good at medical image perception.
   d. They want to show how expertise in medical image perception is different from other kinds of expertise.

4. Which of the following is true according to the global-focal search model?
   a. The expert's schema is a plan for how to evaluate an image.
   b. Experts can notice abnormalities that appear in their parafoveal or peripheral vision.
   c. Experts are not aware of what they see in the first step of the process of evaluating an image.
   d. Experts can make their diagnostic decision based solely on their overall impression of the image.

5. Which of the following is closest in meaning to the word perturbations as used in paragraphs [2] and [4]?
   a. movements
   b. differences
   c. schemas
   d. regions

6. In paragraphs [2] and [3], what is the word recursive used to mean?
   a. The first process does not serve as input to the second process.
   b. The first process serves as input to the second process.
   c. Attention switches back and forth between the two stages of processing.
   d. A perturbed region is flagged again for further consideration.

7. Which of the following is true of the two stages in the two-stage detection model?
   a. The two stages differ in terms of attentional focus.
   b. Information is processed simultaneously by both stages.
   c. The first stage takes place consciously and the second stage subconsciously.
   d. A stage of explicit evaluation is followed by a holistic stage.

8. Which of the following has been empirically tested by comparing the performance of a model with human performance?
   a. The holistic model
   b. The global-focal model
   c. The chunking/template theory
   d. The two-stage detection model

9. Which of the following best describes the basic structure of Text I?
   a. It is a chronological summary of scientific discovery within a field of research.
   b. It compares expert with novice image perception, and describes the differences.
   c. It briefly introduces several ways of explaining a phenomenon and then provides details.
   d. It introduces several theories, and then compares the advantages and disadvantages of each.

Text II

One important element for understanding WM* limits is chunking. This mechanism is important not only in understanding standard cognitive performance, but also in explaining the differences between novices and experts. The chunking mechanism was initially described by de Groot (1946/1978) and Miller (1956), and then theorized by Chase and Simon (1973a). A current definition is given by Gobet et al. (2001, p. 236): a chunk refers to "… a collection of elements having strong associations with one another, but weak associations with elements within other chunks." To explain chunks, Miller (1956) and subsequently Cowan (2001) used the same example. When the letters "fbiibm" are presented, if one knows the acronyms "FBI" and "IBM," then it is possible to simplify the information by forming two chunks ("FBI" and "IBM") in WM. Because these familiar patterns exist in LTM* – FBI is the Federal Bureau of Investigation and IBM is a well-known computer company – the letters "f," "b," "i," "i," "b" and "m" can be encoded as two elements in WM instead of six.

Chunking theory provides an explanation for the superiority of experts over novices. For example, in the field of chess, chunking has been used to explain how chess experts are able to recall more chess pieces on a board than novices (Chase & Simon, 1973b; de Groot, 1946/1978). Thanks to their greater knowledge of chess positions – in terms of chunks in LTM – the experts are able to encode the presented chess positions in fewer chunks in WM, thereby gaining storage space in WM. For example, a chess master can encode 15 pieces presented on a board as one chunk (Gobet & Clarkson, 2004). This process is statistically less likely for novice players since they have less knowledge of chess positions and therefore possess fewer chunks in LTM.

Chase and Simon (1973a) confirmed de Groot's (1946/1978) results, but also found that when the chess pieces to be recalled were placed in random locations, the superiority of experts over novices disappeared. They argued that experts could not use their LTM chunks to encode the random positions, since these positions did not contain any of the chunks the experts had in LTM. Thus, the positions were mostly as new to them as to the novices. The experts' advantage was significant only when they could actually use their knowledge. With their MAPP (Memory Aided Pattern Perceiver) computer simulation, Simon and Gilmartin (1973) estimated that the number of chunks in LTM to reach a master level ranged from 10,000 to 100,000.

※ページ下部に出典を追記しております。

[Adapted from Guida, A., Gobet, F., Tardieu, H., & Nicolas, S. (2012). How chunks, long-term working memory and templates offer a cognitive explanation for neuroimaging data on expertise acquisition: A two-stage framework. *Brain and Cognition, 79*(3).]

*WM (working memory) = limited capacity system used to temporarily represent information during cognitive processing.

*LTM (long-term memory) = high capacity system used for long-term storage of knowledge.

Questions 10 – 12 refer to Texts I and II.

10. According to chunking theory, which of the following is true about experts?
    a. Experts can store up to 100,000 chunks in working memory.
    b. Experts and novices have the same number of chunks in long-term memory.
    c. Experts do not use their long-term memory when recalling chunks, but novices do.
    d. Experts use chunks to represent more information than novices within the same working memory limits.

11. If the difference between experts and novices were to be explained by chunking theory, which of the following would likely be true about experts or novices in medical image perception?
    a. Experts would be more likely to remember the name of a disease if it were similar to the name of a company.
    b. Experts would be more likely to have seen particular configurations of features in medical images.
    c. Novices would be better at global search, and experts would be better at focal search.
    d. Novices would be able to process images using only long-term memory.

12. How would the authors of Text I most likely view the relationship between the theories discussed in Text I and the theory discussed in Text II?
    a. The theory in Text II can explain other kinds of expertise, but not expertise in medical image perception.
    b. The theories represent similar ways of thinking about the same basic process.
    c. The theories contradict each other.
    d. Each newer theory offers improvements over the older ones.

Text III

Three main parallels can be drawn between the global processing advantage shown by medical experts, and the larger visual span shown by chess experts. First, in both cases the perceptual encoding advantage appears to be domain specific. Radiologists do not perform better than novices when tested with control visual search tasks that involved searching for the character WALDO* and searching for the word NINA (Nodine and Krupinski, 1998; Nodine and Kundel, 1997), and a comparative visual search task that more closely mimics radiology tasks showed a similar pattern of results between radiologists and laymen (Moise et al., 2005). Second, chess expertise is analogous to expertise in medical diagnosis because both forms of expertise involve extensive, domain specific knowledge of visual configurations (Wood, 1999). This knowledge allows experts to 'chunk' together domain specific information such that they can recognize patterns instead of only seeing individual features (Gunderman et al., 2001). Furthermore, it is likely that it is necessary to build up this vocabulary of domain related visual knowledge in order to facilitate the global mode of processing. Third, for both chess players and medical experts, it is possible that not all of this knowledge is accessible to conscious awareness (Heiberg Engel, 2008; Norman et al., 1992).

[Adapted from Reingold, E. M., & Sheridan, H. (2011). Eye movements and visual expertise in chess and medicine. In S. P. Liversedge, I. Gilchrist, & S. Everling (Eds.), *The Oxford Handbook of Eye Movements*. Oxford: Oxford University Press.]

*Waldo = the character in the famous children's book "Where's Waldo?" (also known as "Where's Wally?"), where the goal is to locate the image of Waldo/Wally in a complex picture.

Questions 13 – 15 refer to Texts I, II, and III.

13. According to the texts, which of the following is NOT true?
    a. Chess experts who can quickly memorize chess piece layouts should be better at finding "Waldo."
    b. Expertise in chess and medical image perception both involve recognizing patterns in visual information.
    c. Experts may not be able to explain how they do the tasks they are experts at.
    d. All of the theories of expertise described in the texts include an element of experience.

14. Which of the following is implied by the texts?
    a. Novices' global processing is similar to that of experts.
    b. Search-to-find processing is faster than holistic processing.
    c. The chunking theory can explain expertise in chess, but not in medical image perception.
    d. The primary changes one undergoes in becoming an expert are in holistic, not focal-level processing.

15. Which of the following best describes the relationship between Texts I, II, and III?
    a. Text I discusses a topic, Text II discusses an unrelated topic, and Text III contrasts the two topics.
    b. Text I provides an introduction to several theories, Text II introduces a contradictory theory, and Text III summarizes how these theories interact.
    c. Text I introduces several theories to explain a phenomenon, Text II discusses how one theory applies to another domain, and Text III compares how the phenomenon occurs in the different domains.
    d. Text I summarizes a phenomenon, Text II summarizes another phenomenon, and Text III compares the two phenomena.

Part II. Read the passage and rearrange the seven words in 1 – 5 in the correct order. Then choose from a – d the option that contains the third and fifth words.

Primeval forests are far from human habitation; thus, it is difficult to provide electric power to forest wireless sensors because the grid is unavailable, and it is expensive to build power lines. Furthermore, $_1$(at / batteries / be / changed / intervals / must / regular), which is labor intensive, and tall trees inhibit $_2$(floor / forest / from / irradiation / reaching / solar / the), rendering solar energy unusable. Recently, researchers have increasingly focused on local materials, and soil is a large warehouse for energy that contains ample heat. A new method based on the Seebeck effect uses the temperature difference between forest soil and air to generate electricity.

Thermoelectricity has great advantages, and an increasing amount $_3$(environments / in / into / of / research / special / thermoelectricity) has been conducted. Nuwayhid et al. developed a domestic

woodstove thermoelectric generator for families in rural Lebanon. They attached thermoelectric modules $_4$(and / domestic / generated / power / to / with / woodstoves) the heat released by wood burning. A single thermoelectric generator (TEG) can produce as much as 4.2 W of electric power $_5$(available / for / other / remains / stove / the / while) purposes, such as cooking and heating.

[Adapted from Huang Y., Xu D., Kan J., & Li W. (2019). Study on field experiments of forest soil thermoelectric power generation devices. *PLoS ONE* 14(8): e0221019.]

1. a. 3rd: batteries 5th: must
   b. 3rd: be 5th: at
   c. 3rd: at 5th: must
   d. 3rd: at 5th: changed

2. a. 3rd: irradiation 5th: the
   b. 3rd: from 5th: forest
   c. 3rd: forest 5th: solar
   d. 3rd: from 5th: the

3. a. 3rd: special 5th: in
   b. 3rd: environments 5th: special
   c. 3rd: into 5th: in
   d. 3rd: of 5th: into

4. a. 3rd: woodstoves 5th: generated
   b. 3rd: with 5th: domestic
   c. 3rd: domestic 5th: with
   d. 3rd: to 5th: with

5. a. 3rd: stove 5th: for
   b. 3rd: remains 5th: the
   c. 3rd: stove 5th: available
   d. 3rd: other 5th: for

Part III. Answer the questions in Sections A and B.

Section A: Read the text and choose the best option from a – d for questions 1 – 6.

Music can evoke (I) wide variety of strong emotions, including joy, sadness, fear, and peacefulness or tranquility, and people cite emotional impact and regulation as two of the main reasons why they listen to music. Music can produce feelings of intense pleasure or euphoria in (II) listener, sometimes experienced as 'thrills' or 'chills down the spine'. Musical pleasure is closely related (A) the intensity (B) emotional arousal. (C) opposite emotional valences (e.g., 'happy' or 'sad') can be experienced as pleasurable and listeners often report that the most moving music evokes two or more emotions at once. Music does not have the clear survival benefit associated with food or sex, nor does it display the addictive properties associated with drugs of (III) abuse. (D), the average person spends a considerable amount of time listening to music, regarding it as one of life's most enjoyable activities. Many believe that music has special, mystical properties and that its effects are not readily reducible to a neuronal or neurochemical state. Advances in cognitive neuroscience have challenged this view, (E) evidence that music affects the same neurochemical systems of reward as other reinforcing stimuli.

[Adapted from Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. *Trends in Cognitive Sciences*, *17*(4).]

1. Which of the blanks I – III must be filled with an article ('a', 'an', or 'the')?
   a. I only
   b. I and II only
   c. I and III only
   d. II and III only

2. Which of the following best fits in the blank labeled A?
   a. about
   b. by
   c. of
   d. to

3. Which of the following best fits in the blank labeled B?
   a. of
   b. with
   c. about
   d. for

4. Which of the following best fits in the blank labeled C?
   a. When
   b. Even
   c. Hence
   d. Although

5. Which of the following best fits in the blank labeled D?
   a. Consequently
   b. Frequently
   c. Nonetheless
   d. Similarly

6. Which of the following best fits in the blank labeled E?
   a. with
   b. of
   c. against
   d. under

Section B: The five paragraphs [A] – [E] below make up a passage but are not properly ordered. Moreover, the five sentences (1) – (5) in paragraph [A] are not properly ordered, either. Read the entire passage and choose the best option from a – d for questions 7 and 8.

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7. Which of the following shows the best (most coherent) sentence order for paragraph [A]?
   a. 1–5–3–4–2　　b. 2–4–3–5–1　　c. 4–1–3–2–5　　d. 5–2–4–3–1

8. Which of the following shows the best (most coherent) paragraph order for the passage?
   a. A–C–D–E–B　　b. A–E–C–B–D　　c. D–B–A–E–C　　d. D–A–C–E–B

Part IV. Read the texts in Sections A and B, and answer the questions.

Section A: Choose the best option from a – d for questions 1 – 5.

1. Which of the following has the same logical structure as the argument below?
   <Argument> There is no well-established evidence for extra-sensory perception.
   Therefore, extra-sensory perception does not exist.
   a. All children dislike carrots. Therefore, my six-year old nephew dislikes carrots.
   b. John has never seen Mary drink coffee. Therefore, he concludes that she doesn't drink coffee.
   c. Cabbage has been shown to not be beneficial to our health. Therefore, spinach is not good for us, either.
   d. Doctors recommend against powdered medicine Z. Therefore, powdered medicines are worse than liquid medicines.

2. Which of the following, if true, would most clearly contradict the conclusion in the statement below?
   <Statement> It was observed centuries ago that people in good health have body lice and people in poor health do not. Thus, it was concluded that body lice make people healthy.
   a. A person with illness often has a higher body temperature that keeps body lice away.
   b. Being healthy with a normal temperature provides conditions for body lice to live comfortably.
   c. Placing body lice on ill people does not cause them to recover.
   d. A group of healthy people with no body lice is observed.

Questions 3 – 5 refer to the following situation.

A final examination of Mathematics is scheduled for Friday. Four students (Amy, Fuji, Dan, and Roger) have formed a study group to study together at least once during the Monday to Thursday before the test.

Amy can study only on Monday night, Tuesday night, and Wednesday night, as well as Thursday afternoon and night.

Fuji can study only on Monday night, Wednesday night, and Thursday night, as well as Tuesday afternoon and night.

Dan can study only on Wednesday night, Thursday night, and Tuesday afternoon, as well as Monday afternoon and night.

Roger can study only in the afternoon and nights of Tuesday, Wednesday, and Thursday, as well as Monday afternoon.

3. Which of the following could be the days if the whole group wants to study together twice for the test?
   a. Monday and Tuesday
   b. Monday and Wednesday
   c. Tuesday and Thursday
   d. Wednesday and Thursday

4. If the test were moved to Thursday morning, which of the following would be the case?
   I. the complete group would not be able to study together for the test.
   II. Amy could never join the group in the afternoon to study for the test.
   III. Fuji and Dan could study for the test together by themselves three times.
   a. I, II, and III
   b. I and III only
   c. II only
   d. II and III only

5. Suppose that the test is moved to Thursday morning and that another student (Leo) wants to join the group to study for the test but is available only in the afternoons. Which of the following would be the case?
   a. Leo could never study with Amy.
   b. Leo could study only with Roger.
   c. Leo could study only with Fuji and Dan.
   d. Leo could study with all of them but not in the complete group.

Section B: Choose the best option from a – d for questions 6 – 10.

Consider a city council election in a district that is historically 60% Democratic voters and 40% Republican voters. In this election there are three candidates for one council position: Don and Key, both Democrats, and Elle, a Republican. Voters show their preference by ranking all of the candidates. The resulting preference schedule for the votes looks as follows:

	342	214	298
1st choice	Elle	Don	(A)
2nd choice	Don	Key	(B)
3rd choice	Key	Elle	(C)

We can see a total of 342 + 214 + 298 = 854 voters participated in this election. Computing percentage of first place votes:

Don: 214/854 = 25.1%
Key: 298/854 = 34.9%
Elle: 342/854 = 40.0%

So in this election, the Democratic voters (D) their vote over the two Democratic candidates, allowing the Republican candidate Elle to win under the plurality method with 40% of the vote. Analyzing this election closer, we see that it violates the Condorcet Criterion. Analyzing the one-to-one comparisons:

Elle vs Don: 342 prefer Elle; 512 prefer Don: Thus, Don is preferred
Elle vs Key: 342 prefer (E); 512 prefer (F): Thus, (G) is preferred
Don vs Key: 556 prefer Don; 298 prefer Key: Thus, Don is preferred

So even though Don had the (H) number of first-place votes in the election, he is the Condorcet winner, being (I) in every one-to-one comparison with the other candidates.

[Adapted from: Lippman, D. (2013). *Math in Society, Edition 2.4*, Transition Math Project and Open Course Library Project.]

6. Which of the following names fit in blanks A, B, and C, respectively?
   a. Key, Elle, Don b. Don, Elle, Key c. Key, Don, Elle d. cannot be determined

7. Which of the following words best fits in blank D?
   a. halve b. split c. total d. give

8. Which of the following names fit in blanks E, F, and G, respectively?
   a. Key, Elle, Don b. Elle, Key, Elle c. Elle, Key, Don d. Elle, Key, Key

9. Which of the following words best fit in blanks H and I, respectively?
   a. greatest, preferred b. smallest, preferred
   c. greatest, dispreferred d. smallest, dispreferred

10. Which of the following definitions of the Condorcet Criterion is most consistent with the text?
    a. The winner is the candidate that would beat each other candidate in paired match-ups.
    b. The election is determined by whoever wins more Republican or Democratic votes.
    c. The winner is the candidate that wins the most 1st choice votes.
    d. The election must be a one-to-one comparison in order to be a fair election.

Part V. Answer the questions.

For questions 1 – 15, two definitions are given with one sample sentence each. Think of a word that matches both definitions and also fits in the blanks in both sentences. Convert each letter of the word into a number 1 to 4 according to the table below: number 1 represents letters *a* – *g*, 2 represents *h* – *m*, 3 represents *n* – *s*, and 4 represents *t* – *z*. Then choose the matching sequence of numbers from options a – d. For example, if the word you think of is *wise*, for which the first letter *w* is given, the remaining letters would be changed into 2 for *i*, 3 for *s*, and 1 for *e*. Hence, the correct answer would be *w*231.

Number	Letters
1	a, b, c, d, e, f, g
2	h, i, j, k, l, m
3	n, o, p, q, r, s
4	t, u, v, w, x, y, z

1. (i) the purpose that something has, or the job that someone or something does: In your new job, you will perform a variety of (*f*)*s*.
   (ii) to be used as: Schools and libraries are (*f*)*ing* as temporary hospitals to cope with casualties.
   a. *f*4314233 b. *f*23413123 c. *f*133412 d. *f*332

2. (i) a grammatical indicator expressing time for verbs: In English, the simple present (*t*) can be used to express an ongoing action or a habitual action.
   (ii) in a state of physical or nervous anxiety: When the telephone rang, everyone in the room became (*t*), wondering if it might be news about the election results.
   a. *t*213243 b. *t*22131 c. *t*1122433 d. *t*1331

3. (i) to make someone wealthy: In order to (*e*) themselves, young people should be ready to invest in businesses with the most potential.
   (ii) to further improve the quality of something: The mist which covers the valley (*e*)*es* the magical quality of the picture.
   a. *e*321311 b. *e*33212 c. *e*31343111 d. *e*223134

4. (i) sudden and unexpected: The traditional movie is still impressive, even if contemporary viewers may be confused by the (*a*) shifts between styles, time periods, and storylines.
   (ii) brief to the point of rudeness: She left the party (*a*)*ly* without saying a word; her behavior was unprofessional.
   a. *a*312134 b. *a*31134123 c. *a*13434 d. *a*1132231141

5. (i) coming into existence: The (*e*) of home computing technology and its worldwide spread led to numerous societal changes.
   (ii) becoming visible after being concealed: The sun's (*e*) from dark clouds illuminated the whole landscape.
   a. *e*2143123 b. *e*21311311 c. *e*233413 d. *e*2344

6. (i) a special right or advantage granted to a particular person or group of people: All members have the (*p*) of purchasing any packaged tours at a 10% discount.
   (ii) something regarded as a rare opportunity and bringing particular pleasure: The student has the (*p*) of receiving this special scholarship.
   a. *p*1313321311 b. *p*3412112 c. *p*32422111 d. *p*13113411

7. (i) final judgment of guilty in a criminal case: The (*c*) of the murderer was overturned on appeal.
   (ii) a moral sense of right and wrong, viewed as acting as a guide to one's behavior: The whole legal system would collapse if even just a few lawyers begin to let their own moral (*c*)*s* influence their work.
   a. *c*334214233 b. *c*11131 c. *c*33312343 d. *c*133114

8. (i) a medium of financial exchange: At any airport, you can find several (*c*) exchange shops with rates that vary daily, sometimes even hourly.
   (ii) the quality of being generally accepted or in use: A strong social media presence has an immediate (*c*) in politics and activism and many professionals seek it eagerly.

   a. *c*4331314 b. *c*332231324 c. *c*2133323 d. *c*1312331

9. (i) a document explaining how to use something: In the early days of modern consumer electronics, owner's (*m*)*s* were written more for engineers than everyday consumers.
   (ii) of work done or performed with the hands: The construction site was in such a remote area that heavy machinery could not be used and much (*m*) labor was needed.

   a. *m*42132322 b. *m*232124321 c. *m*4312321 d. *m*13412

10. (i) relating to an integer that is divisible by only 1 and itself: The largest known (*p*) number was discovered by Patrick Laroche and has over 24 million digits.
    (ii) the time of maturity when power and vigor are greatest: College students are often said to be in the (*p*) of their lives.

    a. *p*221 b. *p*3221 c. *p*3243331 d. *p*222112

11. (i) the act of getting rid of something: A disagreement arose on the question of the (*d*) of waste and wreckage left in the hurricane's path.
    (ii) the power to use something or someone: The agency promised to use all the resources they have at their (*d*) to prevent the spread of the fires.

    a. *d*434333121 b. *d*22232 c. *d*2333312 d. *d*1112131

12. (i) a property or characteristic of something or someone: One of Mary's best (*a*)*s* is her ability to imagine all of the likely consequences of a decision.
    (ii) to give credit for something: These words have long been (*a*)*d* to Winston Churchill, though it is doubtful that he ever said them.

    a. *a*44321441 b. *a*3343231 c. *a*21331 d. *a*34333131

13. (i) a long narrow path cut naturally or artificially: The pilot steered the boat up the narrow (*c*).
    (ii) to direct the flow of something: The media representative (*c*)*s* statements from the candidate to the press in a timely manner.

    a. *c*213312 b. *c*333231342 c. *c*12113 d. *c*4342322121

14. (i) to prohibit, forbid, or prevent from doing: One reason for the new regulations was to (*i*) the sale of illegal substances to underage residents.
    (ii) shy or hesitant: One stereotype of science and engineering students is that they are socially (*i*)*ed*, but nothing could be further from the truth!

    a. *i*3334121112 b. *i*23212 c. *i*322124 d. *i*1231123241

15. (i) to introduce: The crisis (*p*)*d* a major dilemma for the many policy-makers: How to take decisive action without seeming overly authoritative.
    (ii) speaking or behaving in an artificial way to make an impression: When the facts were uncovered, the executive struck a (*p*) of innocence and pretended that he was actually the victim.

    a. *p*3344311 b. *p*23321 c. *p*1144 d. *p*331

[End of Exam]